Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (twice amended) An apparatus for decentralizing communication services in a telecommunications system, comprising:

[a switch fabric which provides bearer functions;]

a switch intelligence which provides control functions for [said] a switch fabric, said switch intelligence being logically separated from said switch fabric and being implemented in a separate network element from said switch fabric, the switch intelligence being configured to:

process information received from the switch fabric, the information comprising a facility related event associated with a call,

maintain a call state associated with completing the call in accordance with a call model, the call model indicating how the information will be processed,

identify at least one point in call associated with completing the call, and

forward a request for a telecommunications function in response to the identified at least one point in call;

a switch fabric proxy service for providing a normalized interface between said switch fabric and said switch intelligence for [all] communications involving said switch fabric [by interfacing to said switch fabric with any one of a plurality of application program interfaces] and interfacing to said switch intelligence with a uniform application

program interface, wherein the normalized interface comprises any one of a plurality of vendor-specific interfaces associated with the switch fabric; and

a feature processor, said feature processor configured to:

receive the request for the telecommunications function, and

execute the [executing at least one] telecommunications function in response to the received request[, for interacting with said switch intelligence to thereby provide said telecommunications feature].

2. (amended) The [system] apparatus of claim 1, wherein said switch intelligence [further] comprises:

[at least one facility instance instantiated by a] facility service logic [using a facility model, said facility instance representing the] configured to represent bearer and signaling facilities of a party to [a] the call, for interacting with said switch fabric proxy service to communicate with said switch fabric, the facility service logic configured to receive the facility related event and perform protocol processing on the information received from the switch fabric, wherein the facility related event comprises at least one of an off-hook indication, an on-hook indication or a wink.

3. (amended) The [system] apparatus of claim 2, wherein said switch intelligence further comprises:

[a] connection manager logic configured to forward connection information to the switch fabric, the connection information instructing the switch to establish physical connections to complete the call [service representing the connectors for said party to a

call for interacting with said switch fabric proxy service to communicate with said switch fabric].

4. (amended) The [system] <u>apparatus</u> of claim [3] <u>1</u>, wherein said switch intelligence [further] comprises:

[at least one call segment instance instantiated by a] call segment [instance service] <u>logic configured to:</u>

<u>represent a status of at least two call halves associated with completing the call in accordance with the call model, and</u>

<u>perform call processing for each of the at least two call halves</u> [using a call model, said call segment instance representing the call logic and call data for said party to a call, for interacting with said feature processor, said connection manager service, and said facility instance].

5. (amended) The [system] <u>apparatus</u> of claim [2] <u>1</u>, wherein said switch intelligence [further] comprises:

a [first] call processing creation environment, said [first] call processing creation environment interacting with said [facility service,] <u>switch intelligence</u> for modifying said [facility] <u>call</u> model <u>without modifying the switch fabric</u>.

6. (amended) The [system] <u>apparatus</u> of claim 4, wherein said switch intelligence further comprises:

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a [second] call processing creation environment, said [second] call processing

creation environment interacting with said call segment [instance service] <u>logic</u>, for

modifying said call model.

7. (amended) The [system] <u>apparatus</u> of claim 2, wherein said switch intelligence

further comprises:

a [third] call processing creation environment, said [third] call processing creation

environment interacting with said facility service <u>logic</u>[,] for creating new facility

models.

8. (amended) The [system] <u>apparatus</u> of claim 4, wherein said switch intelligence

further comprises:

a [fourth] call processing creation environment, said [fourth] call processing

creation environment interacting with said call segment [instance service] <u>logic</u>, for

creating new call models.

9. (twice amended) <u>An apparatus comprising:</u>

<u>a switch-fabric proxy service for providing a normalized interface between a</u>

<u>switch fabric and a switch intelligence for communications involving said switch fabric</u>

<u>by interfacing to said switch fabric with any one of a plurality of application</u>

<u>programming interfaces, wherein the switch fabric and the switch intelligence are</u>

<u>implemented in separate network elements; and</u>

<u>the switch intelligence, the switch intelligence being configured to:</u>

<u>receive information from the switch fabric,</u>

perform call processing in accordance with a call model using the received information,

maintain a status of at least two call halves associated with completing the call in accordance with the call model, and

direct the switch fabric to make physical connections for each of the at least two call halves to complete the call.

10. (amended) An apparatus according to claim 9, wherein said plurality of application programming interfaces is at least one of vendor-specific or switch-fabric-specific.

11. (twice amended) An apparatus comprising:

switch intelligence configured to:

receive notification of an event associated with a call from a switch fabric, wherein the switch intelligence is implemented in a separate network element from a network element implementing the switch fabric,

execute a call state machine, the call state machine being responsive to the notification of the event and representing processing of the call as at least one call segment, wherein the at least one call segment corresponds to a call half,

provide an association between the at least one call segment and at least one physical device associated with completing the call, and

provide connection information to the switch fabric based on the association.

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12. (amended) An apparatus according to claim 11, wherein said network element implementing the switch intelligence is physically separated from said network element implementing the switch fabric and is coupled to the network element implementing the switch fabric via a communications network.

13. (amended) An apparatus according to claim 11, wherein the network element implementing said switch intelligence is logically separated from the network element implementing said switch fabric.

14. (amended) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service interfaces to said switch fabric with any one of a plurality of application programming interfaces and interfaces to said switch intelligence with a uniform application programming interface.

15. (amended) An apparatus according to claim 14 wherein each of said plurality of application programming interfaces comprises at least one of a vendor-specific application programming interface or a switch-fabric-specific application programming interface.

16. (amended) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates switch-fabric communications into switch-intelligence communications.

17. (amended) An apparatus according to claim 16 wherein said switch-fabric communications are at least one of vendor-specific or switch-fabric-specific.

18. (amended) An apparatus according to claim 11, further comprising:
a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates switch-intelligence communications into switch-fabric communications.

19. (amended) An apparatus according to claim 18, wherein said switch-fabric communications are at least one of vendor-specific or switch-fabric-specific.

20. (amended) An apparatus according to claim 11, further comprising:
a switch-fabric proxy service for providing a normalized interface between said switch fabric and the switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates switch-fabric communications into communications defined according to a uniform interface.

21. (amended) An apparatus according to claim 11, further comprising:

a switch-fabric proxy service for providing a normalized interface between said switch fabric and a switch intelligence for communications involving said switch fabric, wherein said switch-fabric proxy service translates communications defined according to a uniform interface into switch-fabric communications.

22. (twice amended) An apparatus comprising:

a switch intelligence for providing control functions to at least one switch fabric, the switch intelligence comprising:

processing logic configured to:

receive information from the at least one switch fabric, the information including a facility related event associated with a call,

process the received information,

maintain call states in accordance with a call model for at least one party involved in the call, and

provide connection information to the at least one switch fabric for completing the call.

23. (amended) An apparatus according to claim 22 wherein said switch intelligence is one of logically separated or physically separated from said at least one switch fabric, the processing logic being further configured to:

identify at least one point in the call where a telecommunications function is required, and

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send a request for the telecommunications function to a processor in response to the identified at least one point in the call.

24. (amended) An apparatus according to claim 23, further comprising:

a processor executing the telecommunications function in response to the request.

25. (amended) An apparatus according to claim 22, further comprising:

a switch fabric proxy for providing a plurality of application programming interfaces for communications between the at least one switch fabric and the switch intelligence, wherein each of said plurality of application programming interfaces comprises at least one of a vendor-specific application programming interface or a switch-fabric-specific application programming interface.

26. (previously added) An apparatus according to claim 22 wherein said switch intelligence provides control functions to a plurality of switch fabrics.

27. (amended) An apparatus according to claim 22 wherein said switch intelligence further comprises at least one of a facility service, a call connection manager service, or a call segment instance service.

28. (twice amended) An apparatus according to claim 27 wherein said at least one of a facility service, a call connection manager service, or a call segment instance service

comprises a call segment instance service, the call segment instance service configured to maintain the call states for the at least one party involved in the call.

29. (twice amended) An apparatus, comprising:

means for receiving switch-fabric communications from a switch-fabric, the switch-fabric communications including event information associated with a call;

means for processing the switch-fabric communications, wherein the means for processing is configured to maintain call states in accordance with a call model for at least one party involved in the call and generate connection information for completing the call; and

means for translating the connection information into switch-fabric communications for use by a switch fabric.

30. (twice amended) An apparatus, comprising:

means for translating switch-fabric communications into communications defined according to a uniform switch-intelligence interface;

means for processing the switch fabric communications comprising event information associated with a call, the means for processing being configured to:

maintain call states for at least one party involved in the call in accordance with a call model, and

execute the call model to generate connection information for completing the call; and

means for translating the communications defined according to the uniform switch-intelligence interface into switch-fabric communications.

31. (amended) The apparatus according to claim 30, further comprising:

means for translating communications defined according to the uniform interface into switch-intelligence communications; and

means for translating switch-intelligence communications into communications defined according to a uniform interface.

32. (amended) An apparatus comprising:

a switch-fabric proxy service that is capable of at least one of translating switch-fabric communications into switch-intelligence communications, translating the switch-intelligence communications into the switch-fabric communications, translating the switch-fabric communications into communications defined according to a uniform switch-intelligence interface, or translating the communications defined according to a uniform switch-intelligence interface into the switch-fabric communications; and

a switch intelligence implemented in at least one network element, the at least one network element being a separate network element from a network element implementing a switch-fabric that is coupled to the switch-fabric proxy service, the switch intelligence being configured to:

execute a call model to generate connection information for completing a call corresponding to a request received at a switch fabric,

maintain call states for at least one party involved in the call in accordance with the call model, and

forward the connection information to the switch fabric via the switch-fabric proxy service.

33. (amended) An apparatus according to claim 32, wherein said switch-fabric proxy service includes a normalized interface between the switch fabric and the switch intelligence.

34. (amended) The apparatus according to claim 32, wherein said at least one network element implementing the switch intelligence is one of logically separated or physically separated from the network element implementing the switch fabric and is coupled to the network element implementing the switch fabric via a communications network.

35. (amended) An apparatus according to claim 32, wherein the switch fabric includes said switch-fabric proxy service.

36. (amended) An apparatus according to claim 32, wherein the switch intelligence is further configured to:

maintain the call model, the call model affecting how calls received by the switch fabric will be processed and wherein the call model is modifiable at the switch intelligence without modifying the switch fabric.

37. (amended) An apparatus according to claim 32, wherein said switch-fabric proxy service includes an application programming interface for interfacing with the switch fabric.

38. (amended) An apparatus according to claim 32, wherein said application programming interface is at least one of a vendor-specific interface or a switch-fabric-specific interface.

39. (amended) An apparatus according to claim 32, wherein said switch-fabric proxy service includes an application programming interface for interfacing with the switch-intelligence.

40. (twice amended) An apparatus comprising:

a switch intelligence network element for controlling a switch fabric network element, wherein said switch intelligence network element comprises:

processing logic configured to:

receive notification information from the switch fabric network element associated with a call, and

perform call half processing for at least one party associated with the call in response to the notification information and in accordance with a call model.

41. (amended) An apparatus according to claim 40, wherein said processing logic is further configured to:

perform the call half processing in accordance with a call model, the call model representing at least one of an Advanced Intelligent Network (AIN) call model, an International Telecommunications Union (ITU) call model or a call model created by a service provider.

42. (amended) The apparatus according to claim 40, wherein said switch intelligence network element includes at least one of a first application programming interface communicable with a switch-fabric proxy service or a second application programming interface communicable with a feature processor that executes at least one telecommunications function.

43. (amended) The apparatus according to claim 40, further comprising at least one application programming interface communicable between at least one of a facility service, a call connection manager service, or a call segment instance service and another of said at least one of a facility service, a call connection manager service, or a call segment instance service.

44. (twice amended) An apparatus comprising:
a feature processor for executing at least one telecommunications function; and
switch intelligence configured to:
    receive facility data associated with a call from a switch fabric,
    perform call half processing associated with at least one party to the call in response to the facility data and in accordance with a call model, and

provide connection information to an entity that received the call, wherein the connection information identifies physical connections to complete the call, wherein the switch intelligence is implemented in at least one network element, the at least one network element being a separate network element from the entity that received the call.

45. (twice amended) An apparatus for controlling a switch fabric, the apparatus being implemented in at least one network element, the at least one network element being separate from the switch fabric, the apparatus comprising:

logic for processing facility information received from the switch fabric in accordance with a call model,

logic for performing call half processing for at least one party involved in the call in response to the facility information and in accordance with the call model, and

logic for forwarding connection information to the at least one switch fabric.

46. (amended) The apparatus of claim 45, further comprising:

interface logic including a first interface for communications between the apparatus and the switch fabric.

47. (twice amended) An apparatus, comprising:

a call completion device for providing bearer functions, said call completion device performing communications with a switch intelligence that is implemented in a

separate network element from said call completion device, the call completion device being configured to:

forward a facility related event associated with a call to the switch intelligence, and

receive bearer connection information from the switch intelligence in accordance with a call model executed by the switch intelligence.

48. (previously added) The apparatus of claim 47, wherein the switch intelligence comprises a call state model, and wherein the call completion device communicates with the switch intelligence to affect a call state.

49. (amended) The apparatus of claim 48, wherein the call state is represented in the call state model.

50. (previously added) The apparatus of claim 47, further comprising:

a switch fabric proxy service for providing an application programming interface for communications between the call completion device and the switch intelligence.

51. (amended) An apparatus, comprising:

logic configured to receive information from a switch fabric that received a request for making a call, the information comprising facility data;

logic configured to perform call half processing for at least a first party or a second party associated with the call in response to the facility data and in accordance with a call model;

logic configured to generate connection information for the entity that received the request; and

logic configured to forward the connection information to the entity that received the request.

52. (amended) The apparatus of claim 51, wherein the facility data comprises facility related event information.

53. (previously added) The apparatus of claim 51, wherein the apparatus is implemented in a network element that is separate from the entity that received the request.

54. (previously added) The apparatus of claim 51, wherein the logic configured to perform call half processing maintains call states associated with completing the call in accordance with a call model.

55. (new) The apparatus of claim 11, wherein the event comprises a facility related event.

56. (new) The apparatus of claim 55, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

57. (new) The apparatus of claim 22, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

58. (new) The apparatus of claim 29, wherein the event information comprises a facility related event.

59. (new) The apparatus of claim 58, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

60. (new) The apparatus of claim 40, wherein the notification information comprises a facility related event.

61. (new) The apparatus of claim 60, wherein the facility related event comprises at least one of on-hook, off-hook or wink.

62. (new) The apparatus of claim 45, wherein the facility information comprises at least one of on-hook, off-hook or wink.